

## **BIAS-PROBE ROTATION TEST OF VESTIBULAR FUNCTION**

### Abstract

Apparatus and methods for rotation test stimulus and analysis methods overcome  
5 many of the limitations of traditional clinical tests of peripheral vestibular function. An  
embodiment includes a rotational stimuli applied to the rotational motion for testing that  
includes two separate components, a bias component and a probe component. The bias  
component for rotational motion is designed to temporarily turn off vestibular responses  
in one ear while the responsiveness in the opposite ear is simultaneously evaluated using  
10 the probe component of the stimulus. Responses from application of these stimuli are  
analyzed by isolating and separating the bias response from the probe response. The bias  
and probe component responses are parameterized by applying curve fits of mathematical  
functions to the isolated bias and probe component responses. These parameters  
characterize the patient's vestibular function.

15